

Rotorua Inflows Update

LEGEND

- Catchments Surface
- State Highways
- Railways
- Stream monitoring location



Rotorua stream sampling sites and surface catchments

Printed at 15/02/13 10:41:40 by ENVBOP\pauls
GeoView 2.4.2.0

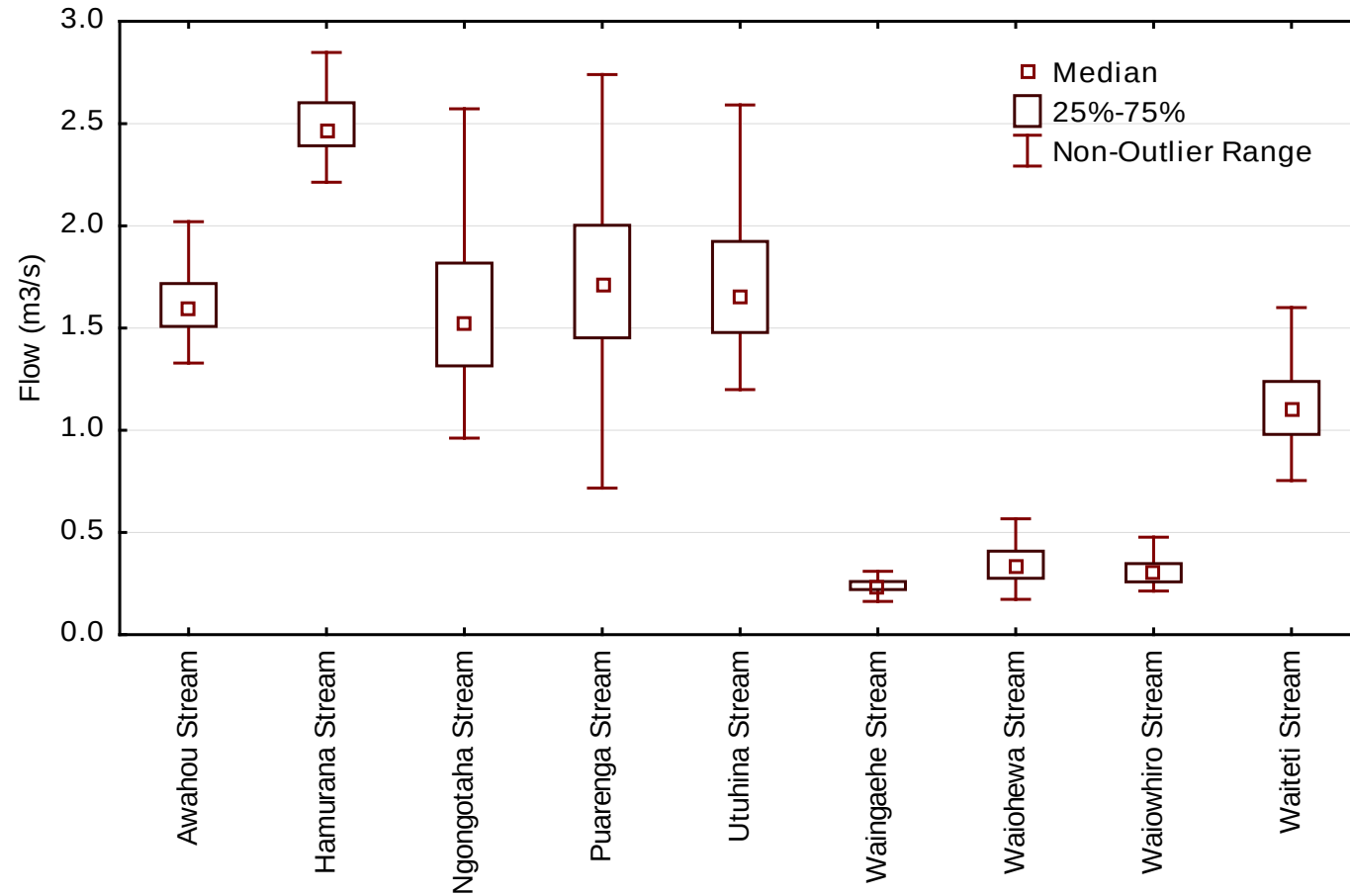
Scale 1:117,647



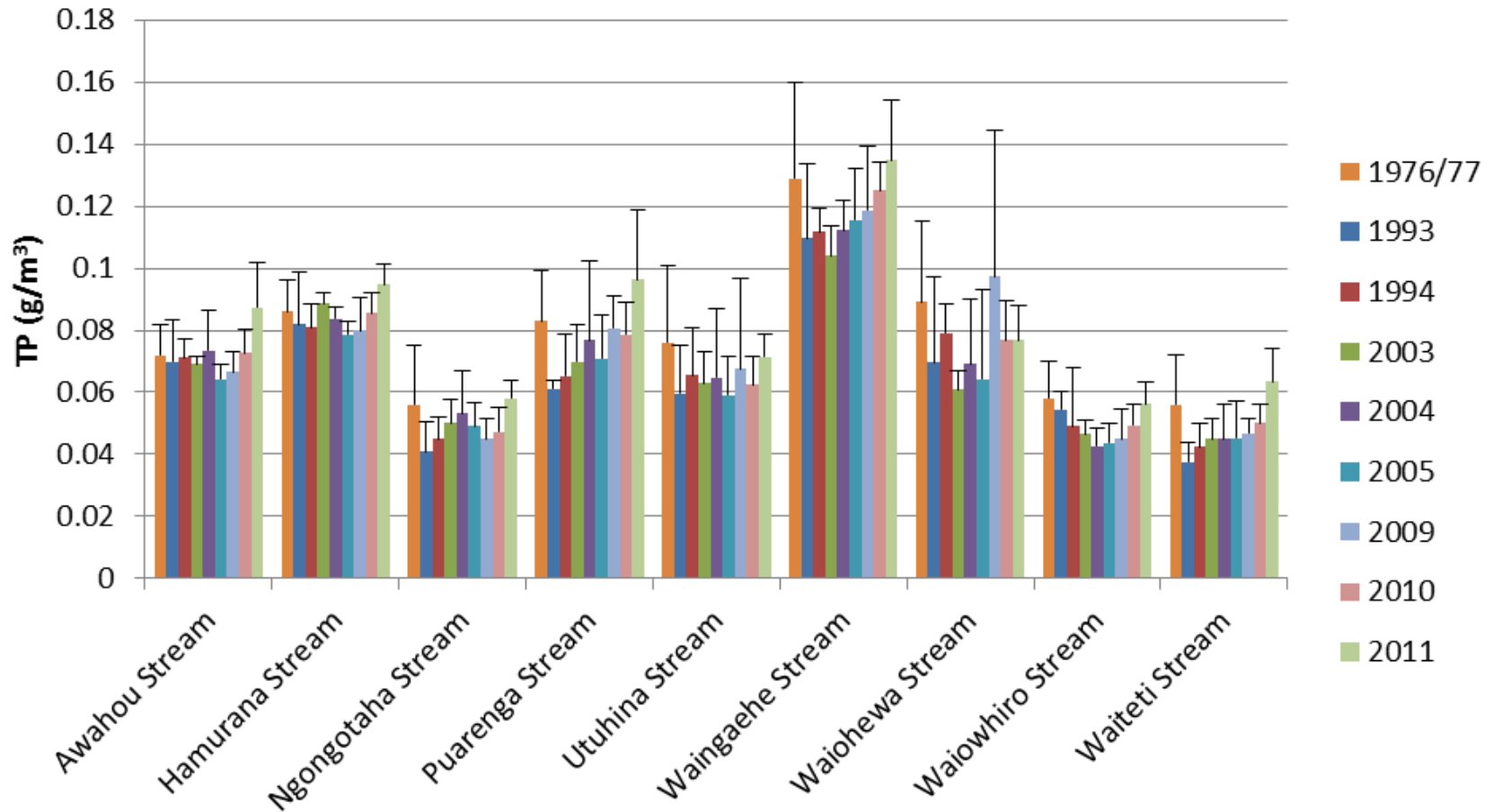
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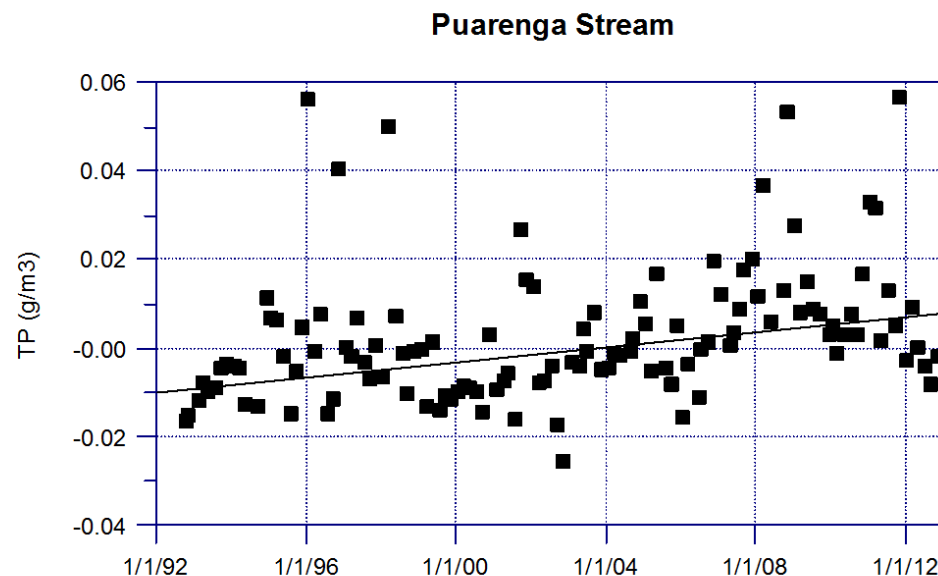
Stream Flow



Annual average TP

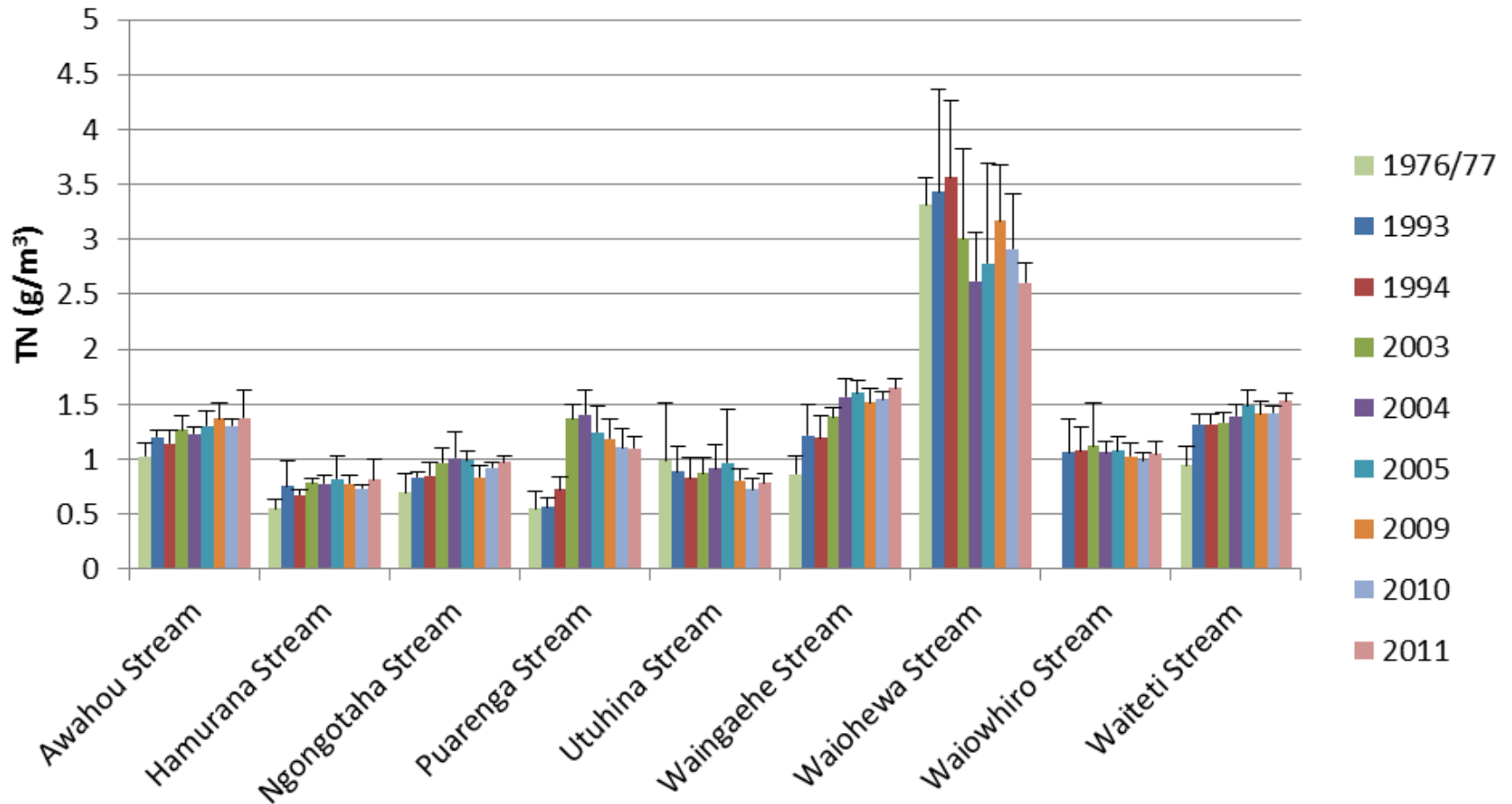


TP Trends – 2002 to 2012



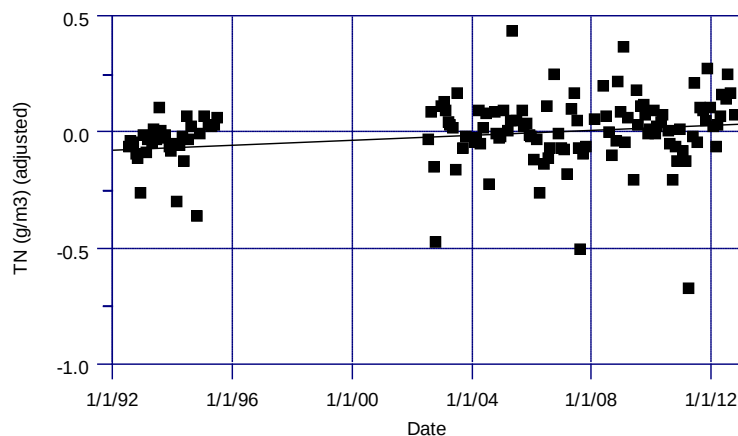
Stream	n	%/yr (RSEN)	p-value	median
Utuhina Stream	108	1.60	0.005	0.062
Waingaehe Stream	107	0.80	0.046	0.112
Waiowhiro Stream	103	1.92	<0.001	0.047
Waitetī Stream	96	1.46	0.023	0.048
Puarenga Stream	117	2.24	0.0002	0.071

Annual average TN

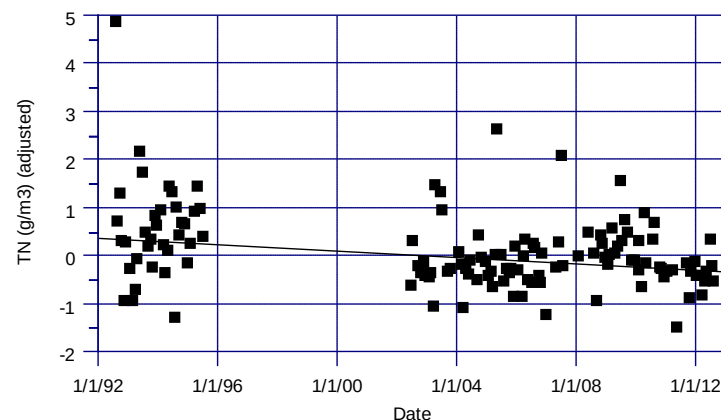


TN Trends – 1992 to 2012

Awahou Stream



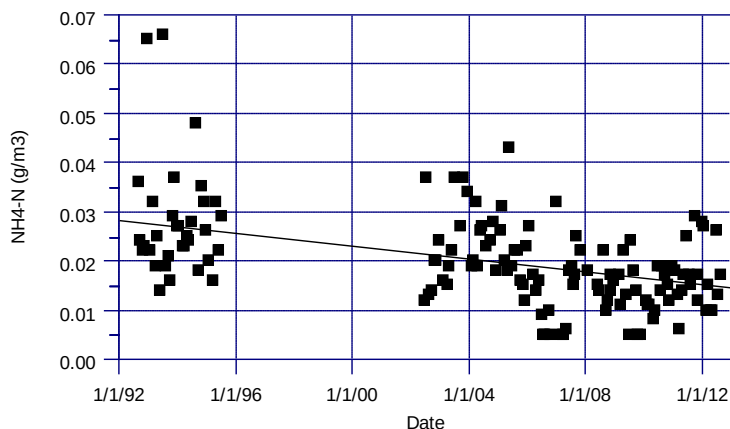
Waiohewa Stream



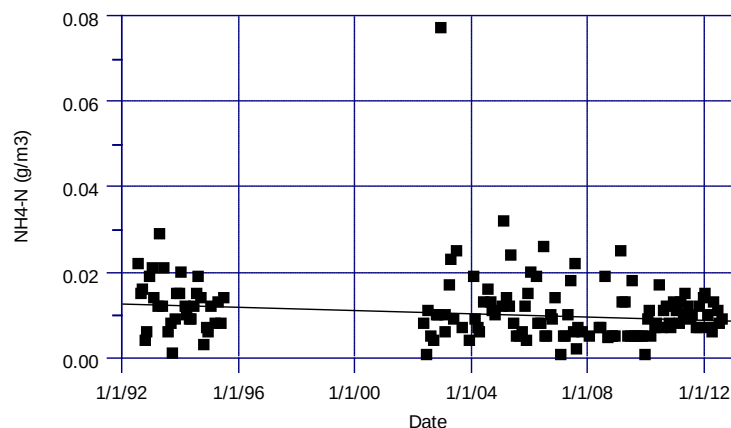
Stream	n	%/yr (RSEN)	p-value	median
Utuhina Stream	155	-1.22	<0.0001	0.834
Awahou Stream	137	0.43	0.0002	1.282
Waingaehe Stream	140	0.56	0.0014	1.508
Waiohewa Stream	129	-1.25	0.0019	2.721
Puarenga	210	1.10	0.0001	1.147

NH₄-N Trend 1992 to 2012

Waiteti Stream

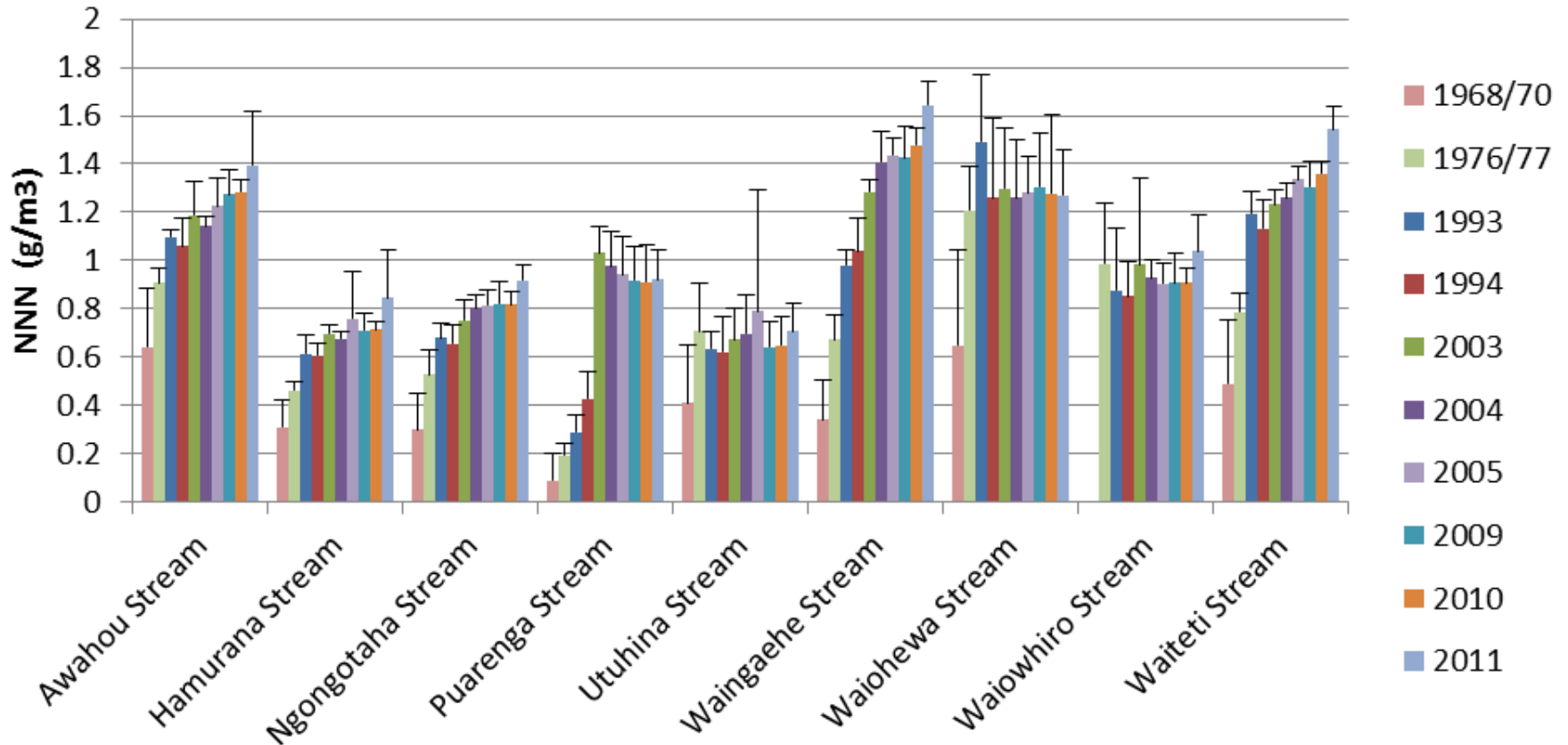


Waingaehe Stream



Stream	n	%/yr (RSEN)	p-value	median
Hamurana Stream	143	-2.5	0.0007	0.008
Waiohewa Stream	131	-1.47	0.036	1.300
Waingaehe Stream	143	2.0	0.011	0.010
Waiowhiro Stream	149	-2.0	0.013	0.020
Waitetī Stream	140	-3.16	<0.0001	0.019

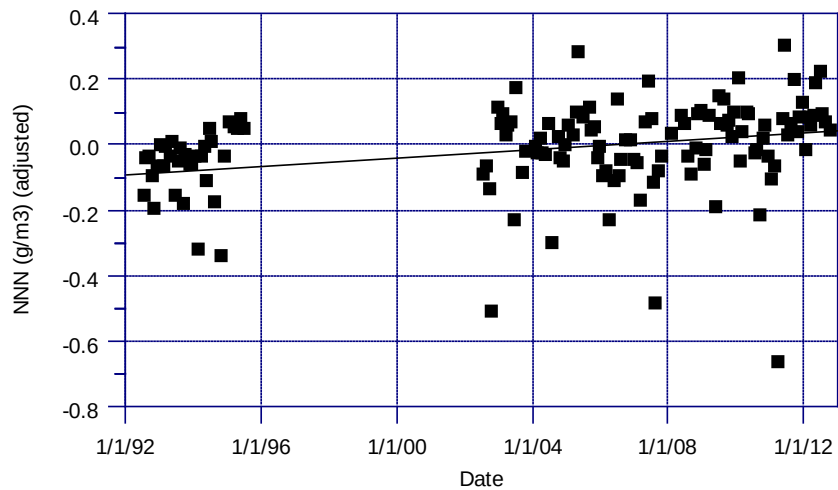
NNN annual average



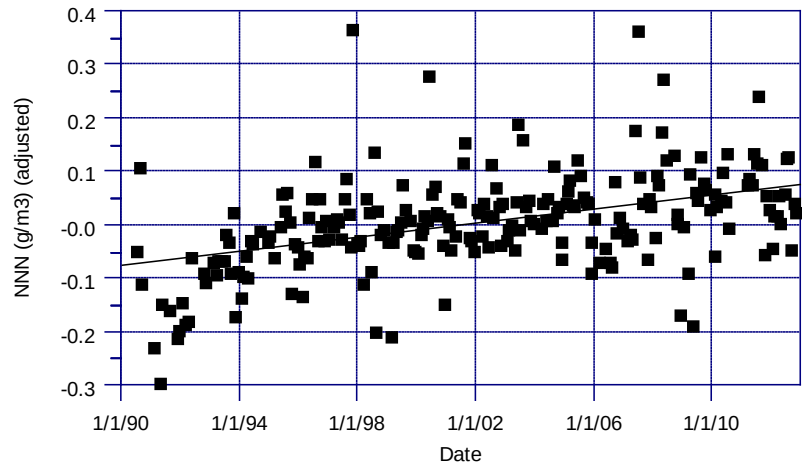
NNN Trends – 1992 to 2012

Stream	n	%/yr (RSEN)	p-value	median
Awahou Stream	137	0.52	<0.0001	1.197
Hamurana Stream [#]	140	0.97	<0.0001	0.692
Ngongotahā Stream	226	0.83	<0.0001	0.786
Puarenga Stream	215	2.27	<0.0001	0.884
Utuhina Stream	155	-0.39	0.043	0.67
Waingaehe Stream	140	1.08	<0.0001	1.403
<i>Waiohewa Stream</i>	<i>129</i>	<i>0.33</i>	<i>0.17</i>	<i>1.348</i>
Waiowhiro Stream	136	0.41	0.013	0.926
Waitetī Stream	128	0.5	<0.0001	1.305

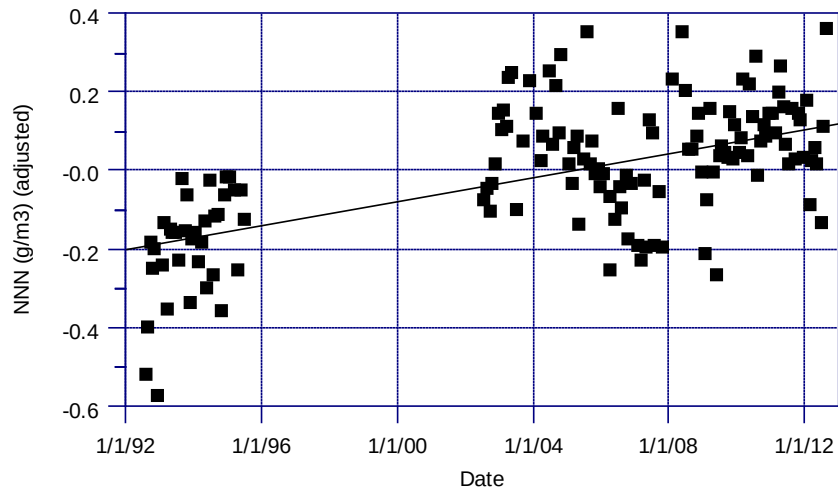
Awahou Stream



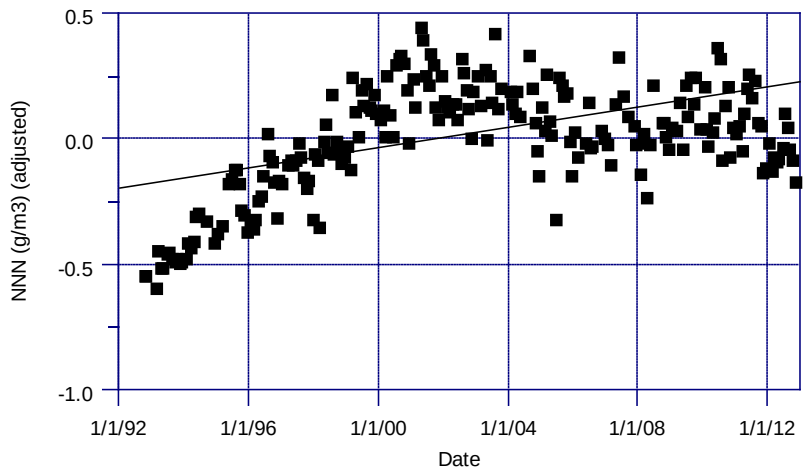
Ngongotaha Stream



Waingaehe Stream

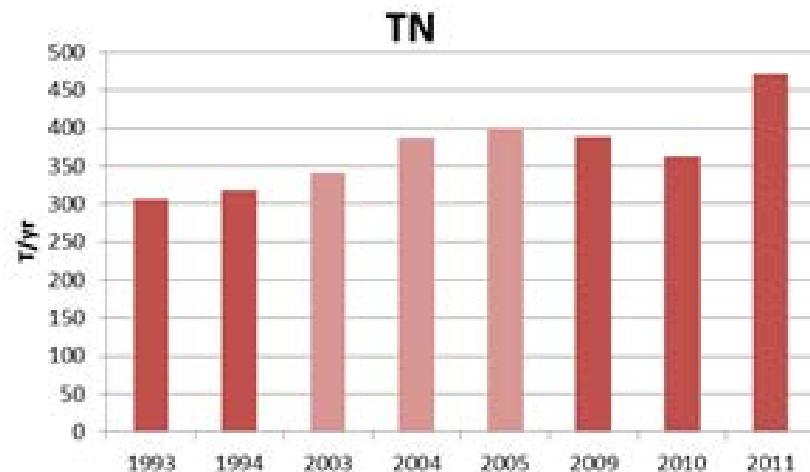
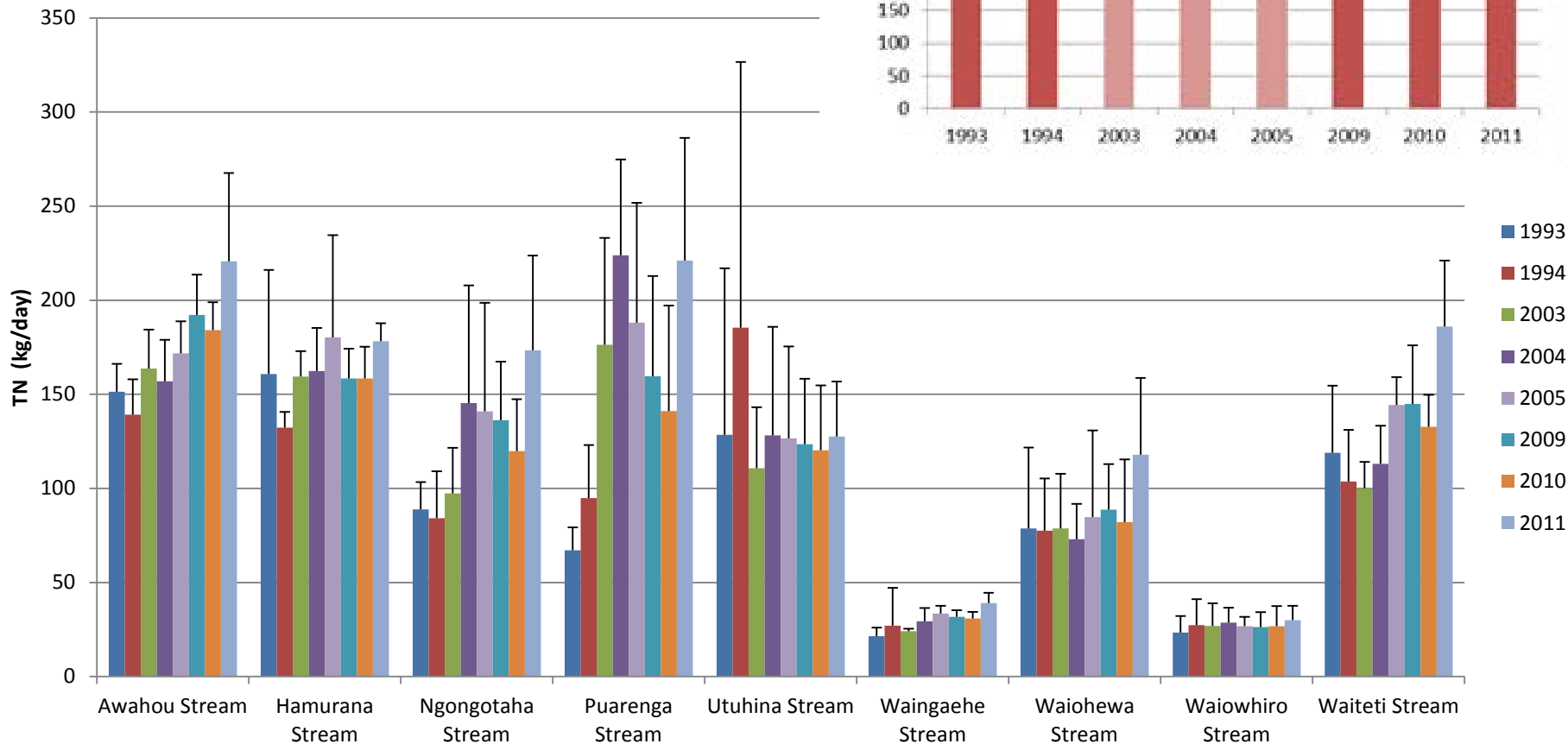


Puarenga Stream

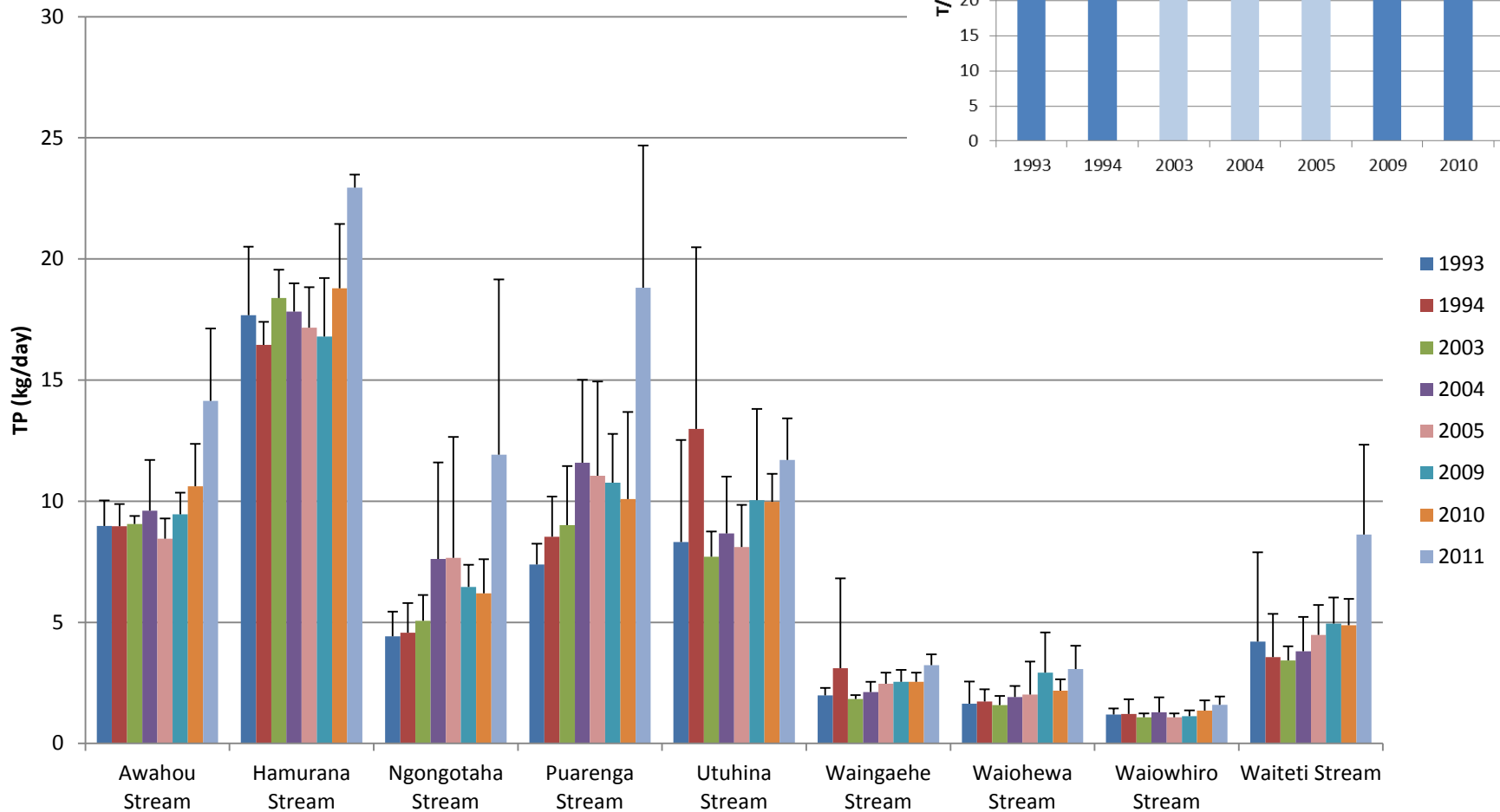


NNN Trends – 1992 to 2012

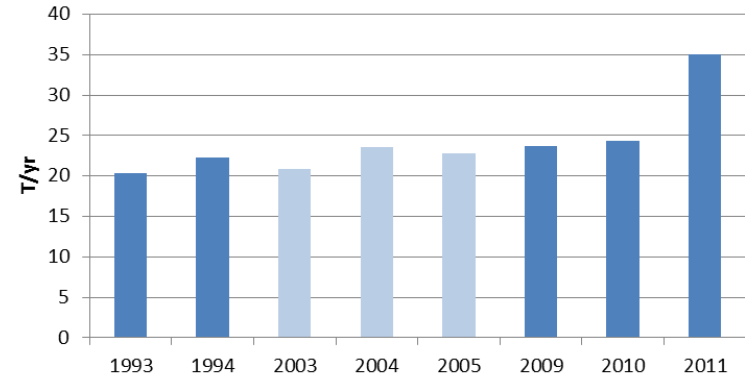
TN Load



TP Load



TP



Nitrogen Trend Summary

Stream	1992-2012			2002-2012		
	TN	NH ₄ -N	NNN	TN	NH ₄ -N	NNN
Awahou Stream	0.43		0.52	0.67		1.07
Hamurana Stream		-2.50	0.97 [#]		-5.0	1.39 [#]
Utuhina Stream	-1.22		-0.39	-1.51	-3.68	0.87
Ngongotahā Stream			0.83		2.67	0.6
Puarenga Stream	1.1		2.27	-2.28		-1.51
Waingaehe Stream	0.56	2.00	1.08			1.03
Waiohewa Stream	-1.25	-1.31	0.33			
Waiowhiro Stream		-2.00	0.41			
Waitetī Stream		-3.16	0.50		-7.65	0.07